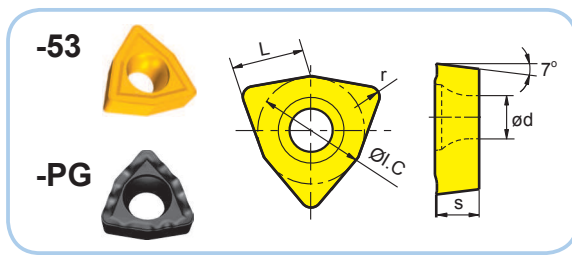


Indexable inserts for drilling · WSP zum Bohren

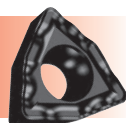


- Ideal Machining Condition
Gute Bearbeitungsbedingungen
- Normal Machining Condition
Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen

Workpiece Material Werkstoffe	P	M	K	N	S
P Steel / Stahl	●	●	●	●	●
M Stainless Steel Rostfreier Stahl	●	●	●	●	●
K Cast Iron Gusseisen	●	●	●	●	●
N Non-ferrite material Ne Metalle					●
S Heat-resistant steel Wärmfester Stahl	●				

Type Typ	Basic dimension(mm) · Basis Abmessungen					Grade · Sorte					
	L	I.C	s	d	r	YBG202	YBG205	YBG201	YBD252	YBG40	YD201
WCMX030208R-53	3.8	5.56	2.38	2.8	0.8	●		●	●	○	○
WCMX040208R-53	4.3	6.35	2.38	3.1	0.8	●		●	●	○	○
WCMX050308R-53	5.4	7.94	3.18	3.2	0.8	●		●	●	○	○
WCMX06T308R-53	6.5	9.525	3.97	3.7	0.8	●		●	●	○	○
WCMX080412R-53	8.7	12.7	4.76	4.3	1.2	●		●	●	○	○
WCMX030208-D	3.8	5.56	2.38	2.8	0.8				○	○	
WCMX040208-D	4.3	6.35	2.38	3.1	0.8				○	○	
WCMX050308-D	5.4	7.94	3.18	3.2	0.8				○	○	
WCMX06T308-D	6.5	9.525	3.97	3.7	0.8				○	○	
WCMX080412-D	8.7	12.7	4.76	4.3	1.2				○	○	
WCMX030208R-PG	3.8	5.56	2.38	2.8	0.8	●			○		
WCMX040208R-PG	4.3	6.35	2.38	3.1	0.8	●			○		
WCMX050308R-PG	5.4	7.94	3.18	3.2	0.8	●	○		○		
WCMX06T308R-PG	6.5	9.525	3.97	3.7	0.8	●			○		
WCMX080412R-PG	8.7	12.7	4.76	4.3	1.2	●			○		

-PG chipbreaker -PG Spanbrecher



Unique design of waveform edge ensure high edge strength and good chip breaking performance for machining carbon steel and alloy steel.

Wellenförmige Schneide mit hoher Stabilität und Spankontrolle zur Bearbeitung von Kohlenstoffstahl, legiertem Stahl und Guss

-53 chipbreaker -53 Spanbrecher



Sharp cutting edge benefits to achieve low roughness surface, mainly applicable for low load cutting of aluminum alloy, mild steel, stainless steel and cast iron.

Scharfe Schneidkante zur Erzielung exklusiver Oberflächen. Zur Bearbeitung von Alulegierungen, Baustahl, rostfreiem Stahl und Grauguss.

-D chipbreaker -D Spanbrecher



Inserts for outer positioning with optimized chipbreaker geometry. And good chip breaking performance for machining, steel, stainless steel, cast iron for common cutting speed.

Optimierte Geometrie als Außenschneide einsetzbar. Gute Spankontrolle bei Stahl, rostfreiem Stahl, Grauguss bei mittleren Schnittgeschwindigkeiten.

Drilling · Bohren

General technical information · Allgemeine Technische Information

Comparison table for drilling Insert - Grades
Bohrwendepplatten Übersichtstabelle - Sorten

Workpiece material Werkstück Material	ISO	Coating · Beschichtung		Cermet Cermet	uncoated carbide unb. Hartmetall	PCBN & PCD PCBN & PKD
		CVD	PVD			
P Steel · Stahl	P01					
	P10		YBG202 YBG205 YBG212			
	P20	YBD252				
	P30					
	P40					
M Stainless Steel Rostfreier Stahl	M01					
	M10		YBG202 YBG205 YBG212			
	M20					
	M30					
	M40					
K Cast iron · Grauguss	K01					
	K10	YBD252		YBG202 YBG205 YBG212		
	K20					
	K30					
	K40					
N Hardened material Gehärtete Werkstoffe	N01					
	N10				YD201	
	N20					
	N30					
S Heat-resistant steel Warmfester Stahl	S01					
	S10		YBG202 YBG205			
	S20					
	S30					
H Non-ferrite materials Ne - Metalle	H01					
	H10					
	H20					
	H30					



Drilling · Bohren

Indexable drill · Wendeschneidplattenbohrer

Recommended cutting data for shallow drills · Empfohlene Schnittdaten für WSP-Bohrern

ISO	Material	Hardness HB Härte HB	Diameter Ø Durchmesser [mm]	Feed rate Vorschub fn [mm/r]	Cutting speed Schnittgeschwindigkeit Vc [m/min]
P	Carbon steel Kohlenstoff- stahl	80-200	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.09 0.05-0.09 0.06-0.10 0.07-0.11 0.08-0.12	200(170-240)
	Low alloy steel Niedrigleg. Stahl	150-260	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.09 0.05-0.12 0.06-0.14 0.08-0.16 0.10-0.20	170(140-220)
	High alloy steel Hochleg. Stahl	150-320	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.09 0.05-0.12 0.06-0.16 0.08-0.18 0.10-0.22	150(120-180)
	Cast steel Gussstahl	180-250	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.08 0.05-0.08 0.06-0.10 0.07-0.11 0.07-0.12	140(120-170)
M	Stainless steel Ferrite Martensite Rostfreier Stahl	150-270	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.09 0.05-0.12 0.06-0.16 0.08-0.18 0.10-0.22	160(110-230)
	Austenite Austenit	150-275	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.09 0.05-0.11 0.06-0.13 0.08-0.14 0.10-0.16	140(110-220)
K	Malleable cast iron Temperguss	150-230	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.10 0.05-0.14 0.08-0.16 0.10-0.20 0.12-0.24	160(120-220)
	Gray cast iron Grauguss	150-220	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.10 0.05-0.14 0.08-0.16 0.10-0.20 0.12-0.24	200(170-240)
	Nodular cast iron GGG Kugelgra- phitguss	160-250	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.09 0.05-0.12 0.06-0.14 0.08-0.16 0.10-0.20	160(130-200)
N	Al alloy Alulegierung	60-110	16.0-23.0 24.0-30.0 31.0-38.0 39.0-46.0 47.0-58.0	0.05-0.10 0.05-0.14 0.08-0.16 0.10-0.20 0.12-0.24	300(250-350)

C

Indexable drills
WSP-Bohrer